Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 (Withdrawn-Currently amended). A method for examining ~~a~~ blood type by reacting blood with reagents, the method comprising the steps of:

providing a blood injecting chamber and a plural micro-channels, one end of each micro-channel being connected to the blood injection chamber;

providing plural reagent storage ~~channels~~ chambers connected to other ends of the micro-channels;

providing plural micro-filters connected with the reagent storage chambers respectively, wherein the micro-filters have plural filter poles, and the filter poles are arranged so as not to pass an agglutinated blood mixture;

providing plural reading channels connected to the micro-filters respectively;

providing a first blood resistance part temporally holding the blood in the reagent storage chambers during a time in which the blood can be agglutinated with a reagent;

introducing the reagents into the plural reagent storage chambers respectively;

flowing the blood into each of the reagent storage

chambers and mixing the blood with the reagents;

filtering the mixture or the agglutination product of the blood and the reagents with the micro-filters; and

flowing the mixture or the agglutination product which has passed the micro filters into the reading channels connected with the micro-filters.

2(Withdrawn). The method according to claim 1, wherein the method further comprises the steps of:

injecting the blood into the blood injection chamber; and

introducing the blood in the blood injection chamber into plural micro-channels, and

wherein the micro-channels are connected with the blood injection chamber, and the blood which passed through the micro-channels is introduced into the reagent storage chamber.

3. (Withdrawn) The method according to claim 1, wherein at the step of flowing the blood into each of reagent storage chambers and mixing the blood with the reagents,

the end of the reading channel is temporally closed in order to slow the flow speed of the blood so that the blood can be mixed with the reagent for sufficient time.

4. (Withdrawn) The method according to claim 1, wherein at the step of flowing the mixture or the agglutination product which passed the micro filters into the reading channels:

the end of the reading channel is temporally closed to slow the flow speed of the blood.

5. (Withdrawn) The method according to claim 1, wherein a reading chamber is formed in the reading channel.

6. (Withdrawn) The method according to claim 1, wherein a first blood resistance part is formed between the storage chamber and the micro-filter.

7. (Withdrawn) The method according to claim 6, wherein the first blood resistance part comprises a first resistance channel connecting the storage chamber to the micro-filter and a first hydrophobic surface-processed part which is hydrophobic on at least one portion of inside of the first resistance channel.

8. (Withdrawn) The method according to claim 6, wherein a second blood resistance part is formed adjacent to the end of the reading channel.

9. (Withdrawn) The method according to claim 8, wherein the second blood resistance part comprises a second hydrophobic surface-processed part which is hydrophobic on at least one portion of inside of the reading channel.

10. (Withdrawn) The method according to claim 1, wherein the micro-filter comprises the filter chamber and the filter part which has plural filter poles formed in the filter chamber, the filter part interfering the flow of the blood mixture or agglutination product in the filter.

11. (Withdrawn) The method according to claim 10, wherein the filter part comprises more than one of filter part located serially with each other, the space interval between the filter poles in the filter part closer to the reagent storage chamber being wider than that between the filter poles in the filter part farther to the reagent storage chamber.

12. (Withdrawn) The method according to claim 11, wherein the micro-filter comprises a first filter part and a second filter part.

13. (Currently amended) An apparatus for examining ~~a~~ blood type, comprising:

a blood injecting chamber;

plural micro-channels one end of which is connected to the blood injection chamber;

plural reagent storage chambers connected to the other end of the micro-channel;

plural micro-filters connected with reagent storage chambers respectively; ~~and~~

plural reading channels connected to the micro-filters respectively; and

a first blood resistance part temporally holding the blood in the reagent storage chambers during a time in which the blood can be agglutinated with a reagent, wherein the micro-filters have plural filter poles, and the plural filter poles are arranged so as not to pass an agglutinated blood mixture.

14. (Original) The apparatus according to claim 13, wherein:

the micro-channel, the reagent storage chamber, the micro-filter, and the reading channel constitute the reading part by being connected with other so that the injected blood in the blood injection chamber can pass through sequently,

wherein the plural reading parts can be arranged parallel with each other, or symmetrically or radially with respect to the blood injecting chamber.

15. (Original) The apparatus according to claim 13, wherein:

the micro-channel connects the blood injecting chamber with the reagent storage chamber one to one.

16. (Original) The apparatus according to claim 13, wherein the micro-filter comprises:

the filter chamber; and

the filter part which has plural filter poles formed in the filter chamber, the filter part interfering the flow of the blood mixture or agglutination product in the filter.

17. (Original) The apparatus according to claim 16, wherein

the width of the filter pole is longer than its length in the cross-sectional view of the filter pole, and the filter poles are allocated crossly to the direction of the fluid which passes through the micro filter.

18. (Original) The apparatus according to claim 13, wherein a first blood resistance part is formed between the storage chamber and the micro-filter.

19. (Original) The apparatus according to claim 18, wherein the first blood resistance part comprises a first resistance channel connecting the storage chamber to the micro-filter and a first hydrophobic surface-processed part which is hydrophobic on at least one portion of inside of the first resistance channel.

20. (Currently amended) The apparatus according to claim 18, ~~wherein~~ further comprising a second blood resistance part ~~is~~ formed adjacent to the end of the reading channel.

21. (Original) The apparatus according to claim 20, wherein the second blood resistance part comprises a second hydrophobic surface-processed part which is hydrophobic on at least one portion inside of the reading channel.

22. (Original) The apparatus according to claim 13, wherein an inhaling hole is formed at the end of the reading channel.

23. (Original) The apparatus according to claim 13, wherein the reagents are stored in the reagent storage chamber.

24. (Original) The apparatus according to claim 23,

wherein the reagents are mixed with a fixing material, and are stored in the reagent storage chamber.

25. (Currently amended) An apparatus for examining ~~a~~ blood type, ~~comprises~~comprising:

a base plate;

a chip plate located on the base plate;

a blood injection chamber formed at the chip plate~~(310)~~;

plural micro-channels formed on the chip plate, and one end on which is connected with blood injection chamber;

plural reagent storage chambers formed on the chip plate, and connected with the other end of the micro-channels;

plural micro filters formed on the chip plate, and connected with the reagent storage chamber;

plural reading channels formed on the chip plate, and connected with the micro-filter; ~~and~~

reading chambers located on the reading channel, and form ~~a~~ transparent or semi-transparent reading windows~~,~~; and

a first blood resistance part temporally holding the blood in the reagent storage chambers during a time in which the blood can be agglutinated with a reagent, wherein the micro-filters have plural filter poles, and the plural filter poles are arranged so as not to pass an agglutinated blood mixture.

26. (Original) The apparatus according to claim 25, wherein

the micro-channel, the reagent storage chamber, the micro-filter, the reading channel, and the reading chamber constitute the reading part by being connected with each other so that the injected blood in the blood infection chamber can pass through sequently,

wherein the plural reading parts can be arranged parallel with each other, or symmetrically or radially with respect to the blood injection chamber.

27. (Original) The apparatus according to claim 25, wherein

the chip plate is made from one plastic selected from the group consisting of polymethylmethachrylate(PMMA), polycarbonate, polytetrafluoroethylene (TEFLON), polyvinylchloride(PVC), and polydimethylsiloxane(PDMS), and

the blood injection chamber, the micro-channel, the reagent storage chamber, the micro-filter, the reading channel are formed by being engraved in intaglio at the bottom of the chip plate contacting the base plate.

28. (Original) The apparatus according to claim 25,

wherein the micro-filter comprises

the filter chamber; and

the filter part which has plural filter poles formed in the filter chamber, the filter part interfering the flow of the blood mixture or agglutination product in the filter.

29. (Original) The apparatus according to claim 25, wherein

the filter poles have a cross-section wherein width is longer than its length, and the width and the length are perpendicular in the shape of T, and wherein the filter poles are arrayed regularly with uniform interval with other filter poles.

30. (Currently amended) The apparatus according to claim 25, wherein ~~a first blood resistance part is provided,~~ the first blood resistance part comprising a first resistance channel connecting the storage chamber to the micro-filter and a first hydrophobic surface-processed part which is hydrophobic on bottom of the first resistance channel.

31. (Currently amended) The apparatus according to claim 28, ~~wherein~~ further comprising a second blood resistance part ~~is~~ located between one end of the reading channel and the reading chamber, the second blood resistance part comprising a

second hydrophobic surface-processed part which is hydrophobic on bottom of the reading channel.

32. (Original) The apparatus according to claim 25, wherein

the apparatus comprises an inhaling hole connecting the plural ends of the reading channels into one.

33. (Original) In the claim 25, wherein an inhaling hole is formed at the end of each reading channel.

34. (Original) The apparatus according to claim 25, wherein the reagents are stored in the reagent storage chamber

35. (Withdrawn-Currently amended) A method of examining ~~a~~ blood type by reacting blood with reagents, comprising

providing a base plate and a chip plate located on the base plate;

providing a blood injection chamber formed at the chip plate, the chip plate comprising a plurality of micro-channels formed thereon, one end of which is connected with the blood injection chamber;

providing plural reagent storage channels formed on the chip plate and connected with other ends of the micro-channels;

providing plural micro-filters formed on the chip plate and connected with the reagent storage chambers, wherein the micro-filters have plural filter poles and the plural filter poles are arranged so as not to pass an agglutinated blood mixture;

providing plural reading channels formed on the chip plate and connected with the micro-filters;

providing reading chambers located on the reading channels, and comprising transparent or semi-transparent reading windows;

providing a first blood resistance part temporally holding the blood in the reagent chambers during a time in which the blood can be agglutinated with a reagent;

introducing reagents into the plural reagent storage chambers respectively;

flowing of the blood into each of the reagents storage chambers and mixing the blood with the reagents;

filtering with the micro-filters the mixture or agglutination product of the blood and the reagents; and

flowing of the mixture or the agglutination product which has passed through the micro-filters into the reading chambers.